

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/083375 A2

(51) International Patent Classification⁷: C12N

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/IT2004/000133

(22) International Filing Date: 19 March 2004 (19.03.2004)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
RM2003 A 000125 21 March 2003 (21.03.2003) IT
RM2003A000370 29 July 2003 (29.07.2003) IT

(71) Applicants and

(72) Inventors: MINCHIOTTI, Gabriella [IT/IT]; Via Ugo Ricci, 19, I-80100 Napoli (IT). PERSICO, Maria [IT/IT]; Via Camillo De Nardis, 10, I-80127 Napoli (IT). PARISI, Silvia [IT/IT]; Via Roma, 136, I-80027 Napoli (IT).

(74) Agents: CAPASSO, Olga et al.; De Simone & Partners S.p.A., Via Vincenzo Bellini, 20, I-00198 Roma (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/083375 A2

(54) Title: METHOD OF PROMOTING THE DIFFERENTIATION OF STAMINAL CELLS

(57) Abstract: A method is described by which stem cells are induced to differentiate into cardiomyocytes; the method comprises exposure for a length of time and at efficacious quantities of a protein of the EGF-CFC family or its derivatives having at least the EGF and CFC domains; or to differentiate into neuronal cells, comprising the exposure to Cripto protein inhibitors. Compositions are described for therapeutic use in treating heart disorders, comprising a therapeutically efficacious quantity of a protein or its derivatives having at least the EGF and CFC domains of a protein of the EGF-CFC family.